

What is claimed is:

1. A printed circuit board comprising at least one edge connector comprising copper coated with conductive ink comprising a binder, graphite powder, carbon black, and silver flakes, wherein the silver flakes have an average grind size not greater than about 10 $\mu$ m.

2. A printed circuit board according to claim 1, wherein the edge connector is a PCI bus.

3. A printed circuit board according to claim 1, wherein the edge connector is an ISA bus.

4. A printed circuit board according to claim 1, wherein the edge connector is an AMR bus.

5. A printed circuit board according to claim 2, wherein the binder is a cured epoxy resin comprising phenolic monomers.

6. A printed circuit board according to claim 3, wherein the binder is a cured epoxy resin comprising phenolic monomers.

7. A printed circuit board according to claim 1, wherein the conductive ink coated on the edge connector has a sheet resistivity of  $0.25 \Omega/\text{square}/15\mu\text{m}$ .

5 8. A printed circuit board according to claim 7, wherein the edge connector is an ISA bus.

9. A printed circuit board according to claim 8, wherein the binder is a cured resin comprising phenolic monomers.

10 10. A method of manufacturing edge connectors on a printed circuit board comprising applying a conductive ink provides a sheet resistivity of about 0.1 to  $0.5 \Omega/\text{sq}/15\mu\text{m}$  over a copper conductor terminating at an edge of the circuit board.

11. A method according to claim 10, wherein the sheet resistivity is about 0.2 to  $0.3 \Omega/\text{sq}/15\mu\text{m}$ .

20 12. A method according to claim 10, wherein the sheet resistivity is about  $0.25 \Omega/\text{sq}/15\mu\text{m}$ .

13. A method according to claim 12, wherein the ink comprises an epoxy resin containing phenolic monomers, graphite powder, carbon black, and silver flakes.

5 14. A method according to claim 13, where the ink further comprises methanol and carbitol.

15. A method according to claim 14, wherein the ink comprises

- 10 (a) from about 20 to 40% of an epoxy resin comprising phenolic monomers;
- (b) from about 3 to 10% of carbon black;
- (c) from about 8 to 20% of graphite powder;
- 15 (d) from about 10 to 50% of silver flakes having an average grind size not greater than about 10 $\mu$ m.

16. A method according to claim 14, where the ink comprises

- 20 (a) from about 20 to 40% of an epoxy resin comprising phenolic monomers;
- (b) from about 3 to 10% of carbon black;
- (c) from about 8 to 20% of graphite powder;
- (d) from about 10 to 50% of the silver flakes having an average grind size not greater than about 10 $\mu$ m;
- 25 (e) up to about 30% thinner and
- (f) up to about 8% methanol.

17. In an edge connector formed by a copper conductor terminating at the edge of a printed circuit board, the improvement comprising applying over the copper conductor  
5 conductive ink comprising silver flakes where the silver flakes are in an amount sufficient to provide a sheet resistivity of from about 0.1  $\Omega/\text{sq}/15\mu\text{m}$  to 0.5  $\Omega/\text{sq}/15\mu\text{m}$ , the silver flakes having an average grind size not greater than about 10 $\mu\text{m}$ .

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18. The edge connector of claim 17 wherein the edge connector has a contact resistance of about  $50 \times 10^{-3} \Omega$ .

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19. The edge connector of claim 17 wherein the edge connector has a contact resistance of about  $35 \times 10^{-3} \Omega$ .

20. The edge connector of claim 17 wherein the edge connector has a contact resistance of about  $30 \times 10^{-3} \Omega$ .

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21. The edge connector of claim 17, wherein the conductive ink comprises thermosetting resin containing graphite powder, carbon black, and silver flakes.

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22. The method of claim 10 wherein the conductive ink provides a contact resistance of about  $50 \times 10^{-3} \Omega$ .

23. The method of claim 11 wherein the edge connector has a contact resistance of about  $35 \times 10^{-3} \Omega$ .

5 24. The method of claim 12 wherein the conductive ink provides a contact resistance of about  $30 \times 10^{-3} \Omega$ .

25. A printed circuit board according to claim 1, wherein the binder is a cured thermosetting resin.

10 26. The edge connector of claim 17, wherein the silver flakes have an average grind size of about  $10 \mu\text{m}$ .

15 27. The edge connector of claim 27, wherein the amount of silver flakes is from about 50 to 75% by volume of the ink.